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REMARKS

Claims 1, 5-8 and 11-15 are pending in this application. Claim 2 was canceled by the amendment entered with Applicants' Request for Continued Examination filed December 19, 2005. The present amendment cancels claims 3, 4, 9 and 10 to expedite this application.

The Office Action rejects pending claims 1 and 3-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,049,937 ("Takeda") in view of U.S. Patent No. 6,502,916 ("Naka").

Applicants' claim 1 recites:

a print job processor for generating a print job request, said request including a toner type requirement data;

a printer having a structure for receiving a developer unit;

a developer unit, containing toner having a type from among a plurality of given types, engaged with said structure for receiving a developer unit;

a switch, in said printer, settable to a state indicating a which of said types of said toner is contained in the developer unit, and for generating a toner signal representative of said state;

a print processor engine associated with said printer, for receiving said toner signal and generating a toner feedback signal in response, and for activating said printer in response to receiving a print activation command;

a communication path between said print job processor and said print processor engine, said communication path including a central print controller,

wherein said central print controller receives said print job request from said print job processor and receives said toner feedback signal from said print processor engine, and

wherein at least one of said print job processor and said central print controller generates said printer activation command based on said print job request and said toner signal, the generation such that it prevents said printer from printing if said toner signal does not match said toner requirement data.

Claim 1 (Currently Amended).

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The amendments do not add new matter. Example support for the claim 1 elements is:

“print job processor” - Fig. 2, items 11 and 12;

“printer” - Fig. 2, items 1 and 2;

“developer unit, containing toner having a type from among a plurality of given types” - Fig. 2, items 150 and 160, and Applicants’ specification at page 19, lines 8-11;

“switch, connected to said printer, settable to a state indicating which of said types of said toner is contained in the developer unit” - Fig. 2, items 140 and 141, and Applicants’ specification at page 19, lines 11-19;

“a communication path between said print job processor and said print processor engine, said communication path including a central print controller” - Fig. 2, items 110, bi-directional lines (not labeled) connecting item 110 to “CPU 1” (item 11) and “CPU 2” (item 12), and the bi-directional lines (not labeled) connecting item 110 to “Printer 1” (item 120) and “Printer 2” (item 121);

“wherein said central print controller receives said print job request ... [and] said toner feedback signal from said print processor engine” – Applicants’ specification at page 18, lines 4-14.

“wherein at least one of said print job processor and said central print controller generates said printer activation command based on said print job request and said toner signal, the generation such that it prevents said printer from printing if said toner signal does not match said toner requirement data” – Applicants’ specification at page 14, lines 7-20.

In summary, Applicants’ claim 1 defines a system having: (i) a printer that receives one or more developers, each developer holding a toner of a particular type, and having a switch corresponding to the printer settable to indicate the toner in each developer, wherein the setting generates a toner feedback signal; (ii) a job processor that generates print job requests, the request including a toner requirement data; (iii) a communication path between the print job processor and the printer, the communication path including a central print controller, wherein the switch sends a toner feedback signal

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to the central print controller and at least one of the print job request processor and the central print controller permits, or prevents the printer from printing based on a comparison of the toner requirement data in the print request and the toner feedback signal received from the printer. As described in Applicants' specification, this prevents the printer from wasting considerable resources by printing with a toner other than that specified by the print request. *See, e.g.*, Applicants' specification at page 9, line 15 through page 10, line 20.

Takeda is not directed to the same problem as Applicants' claim 1 invention, and lacks teaching, suggestion or disclosure, either explicitly or inherently, of multiple elements of claim 1. Takeda discloses a photocopier that senses the kind of print medium loaded into it, and then automatically selects the appropriate toner for that medium. Takeda describes a printer having a mechanical or magnetic indicia on its developer units, but that information is used, locally, by the photocopier to determine, after sensing the type of print medium loaded, which developer has the appropriate toner. *See* Takeda at column 2, lines 5-65.

Takeda discloses nothing of switches indicating what kind of toners are in its respective developer units. The Office Action erred in citing Takeda's column 2, lines 5-65 as having such a disclosure. The cited passage in fact describes "a mechanical key, magnetic code, or other similar means for identifying the type of toner ... [and] toner identification (ID) sensors ... which cooperate with the key or read the magnetic code of the respective developers." *Id.* There is no disclosure, teaching or suggestion anywhere in Takeda of these keys being settable by the end user. Applicants respectfully submit that a key that is not described as being settable, *i.e.*, not being movable from one state to another, is not within the broadest reasonable meaning of "switch."

Applicants further submit that there is no argument available that Takeda has switches under the doctrine of inherency. There is none because such switches are not necessary for Takeda to operate in the manner described. The switches would only be required if Takeda disclosed the act of, or means for, the user to load toner into a developer unit. Takeda has no such disclosure. It has none because it is apparently directed to printers where the end use purchases preloaded developer units, and is not

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expected to re-load those units with toner. Reading Takeda in its entirety, it appears that when a developer (with its mechanical or magnetic key indicating its toner) runs out of toner the user discards or sends that developer unit back for recycling, and purchases a new developer, loaded with a toner and having a key indicating the type.

Takeda discloses nothing of a print job processor generating a print request having a toner type requirement data. First, Takeda does not even disclose a print job processor; Takeda discloses a stand-alone photocopier. All that Takeda discloses is a "print key" 72, on the photocopier itself, allowing a user manually select a toner type. See Takeda at column 4, line 61 through column 5, line 10.

Takeda discloses nothing of a communication path between a print job processor and the printer comprising a central print controller. Again, Takeda discloses a photocopier. There is no print job processor, there is no communication path, and there is no central print controller in that path that it does not have.

Takeda discloses nothing of the photocopier sending anything within the meaning of the claim 1 toner feedback signal, *i.e.*, a signal indicating the toner installed, to anything; Takeda discloses only a photocopier having a print medium sensor and having keys on its developer units, allowing the user, via the control panel on the photocopier, to select a toner, and allowing the photocopier to select the developer unit having a toner proper for the sensed medium.

Naka is not directed to the same problem as Applicants' claim 1 invention, and does not provide the teachings that would lead one of ordinary skill in the art to modify, actually remake, Takeda into claim 1. Naka is directed to an inkjet printer having a sensor for determining if its ink cartridge is compatible with its printhead and, if not, sending a signal indicating same. See Naka, at Abstract, at Summary of the Invention, and at Fig. 8. The signal is not disclosed as having anything to do with any print request; the print request does not specify any compatibility between the printer's ink cartridge and the printhead. Referring to Naka's Fig. 8, the signal(s) generated by Naka are done so when a new ink cartridge is installed, not when a print operation is underway. In summary, at step "a" the user attaches a new ink cartridge. If it is incompatible with the printhead steps (d) and (e) are executed. Applicants respectfully submit that a further

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narrative of Naka's disclosure is not necessary, as Naka's Fig. 8 is self-explanatory and clearly descriptive of a method for attaching an ink cartridge - not of any monitoring of ink type or toner type when a print request is received, not of a communication path having a central controller, and not of permitting or preventing printing based on a toner requirement data and a toner feedback signal.

For the foregoing reasons, Applicants respectfully request that the aggregate teachings of Takeda and Naka fail to establish prima facie obviousness of claim 1 within the meaning of 35 U.S.C. § 103 and, therefore, request that the rejection of claim 1 be reconsidered and withdrawn.

Applicants claim 8 is drawn to similar subject matter as claim 1, and for the same reasons as presented above, is patentable over Takeda within the meaning of 35 U.S.C. § 103.

Applicants' claim 8 recites:

a data processor for generating a print request specifying a required toner type;

a printer having structure for containing one or more of a plurality of toners, each of said toners having a type, and having means for storing and communicating a toner signal representing the type of each of said toners contained; and

a communication path between the data processor and the printer, said path including a common control unit, connecting and selectively communicating between said data processor and said printer, wherein at least one of the common control unit and the data processor controls said printer, based on the data in said print request specifying a required toner type and the toner signal received from the printer, in a manner that prevents said printer from printing if a toner type specified by the print command is not contained in the printer

Claim 8 (currently amended).

Takeda does not disclose, teach or otherwise suggest the claim 8 arrangement of a printer and a data processor connected via the recited communication path having a common control unit. Takeda discloses a photocopier having a control panel. Takeda does not disclose, teach or otherwise suggest the claim 8 functional limitations of

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“wherein at least one of the common control unit and the data processor controls said printer, based on the data in said print request specifying a required toner type. Naka, as stated above, is directed to attaching a new ink cartridge to an inkjet printer, not to any control of a printer based on toner requirements, not to any communication path between a print request processor and a printer, and not to any such communication path having a common control unit.

Applicants therefore respectfully request that the rejection of claim 8 be reconsidered and withdrawn.

Regarding Applicants claim 14, the claim reads as follows:

A method for printing including:
providing a print job processor;

providing a printer;

providing a communication path between said print job processor and said printer, said communication path including a central control computer for routing data through said communication path;

installing a toner in said printer;

storing in said printer a toner data identifying said toner;

communicating said toner data through said communication path to said print job processor;

communicating a print request from said print job processor to said central control computer, said print request including a toner requirement data;

determining, based on said toner requirement data and said toner data, if the toner installed in said printer is compatible with a print job corresponding to said print request; and

preventing, based on said determining, said printer from executing the print job if the compatible toner is not installed in the printer.

Claim 14 (Currently Amended).

Applicants' claim 14 is patentable over the aggregate teachings of Takeda and Naka for reasons comparable to claim 1 being patentable. Takeda does not teach, disclose or otherwise suggest anything of “providing a communication path

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between said print job processor and said printer ... including a central control computer.” Takeda discloses a stand-alone photocopier. Naka does not disclose any such communication path. Takeda does not teach, disclose or otherwise suggest anything of “storing in said printer a toner data identifying said toner.” Takeda discloses developer units having keys, not settable by the user. Naka discloses an inkjet printer; inkjet printers do not have “toner.” Takeda discloses nothing of communicating any data indicative of toner type through a communication path, or through anything, back to a central control processor. Naka does not relate to toners.

Takeda does not teach, disclose or otherwise suggest anything of the claim 14 communicating a print request through the communication path, with or without the claim 14 “toner requirement data.” Takeda discloses a stand-alone photocopier.

Takeda does not teach, disclose or otherwise suggest anything of the claim 14 “determining, based on determining, based on said toner requirement data and said toner data, if the toner installed in said printer is compatible with a print job corresponding to said print request” or of the claimed “preventing, based on said determining, said printer from executing the print job if the compatible toner is not installed in the printer.” Naka, for the reasons presented above, and that are established by its Fig. 8, does not provide any of these teachings that Takeda lacks.

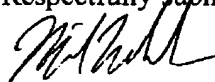
Applicants therefore respectfully request that the rejection of claim 8 be reconsidered and withdrawn.

With respect to dependent claims 3, 5-7, and 9-13 and 15, all of these are combination claims having, in addition to their own limitations, all of the limitations of their respective base claim 1, 8 and 14. Therefore, all of these claims are patentable over the combination of Takeda and Naka for at least the reasons presented above. In view of the foregoing, it is requested that the application be reconsidered, that claims 5-10 be allowed (claims 1-4 have already been determined as allowable), and that the application be passed to issue.

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Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: mike@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

Respectfully submitted,



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